

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 6,795,231 B1  
DATED : September 21, 2004  
INVENTOR(S) : Koscielniak

Page 1 of 3

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Title page.

After Item [57], **ABSTRACT**, delete "6 Claims" and insert -- 22 Claims --.

Column 6.

Line 17, insert the following claims:

- 7. A photonic crystal formed on a semiconductor material of a first conductivity type, the semiconductor material having a top surface, the photonic crystal comprising:
- a diffusion region of a second conductivity type formed in the semiconductor material; and
- a plurality of spaced-apart stacks formed on the semiconductor material over the diffusion region, each stack having a plurality of layers of material and extending away from the top surface of the semiconductor material.
8. The crystal of claim 7 wherein the plurality of layers of material alternate between a first layer of material and a second layer of material, the first layer of material having a first dielectric constant, the second layer of material having a second dielectric constant.
9. The crystal of claim 8 and further comprising an interstack material formed over the semiconductor material between and adjoining the plurality of stacks.
10. The crystal of claim 9 wherein the interstack material has a top surface that is substantially coplanar with a top surface of each stack.
11. The crystal of claim 9 wherein the interstack material has a top surface that lies below a top surface of each stack.

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Column 6 (cont'd).

12. The crystal of claim 9 wherein the interstack material has a top surface that lies above a top surface of each stack.

13. The crystal of claim 7 and further comprising an interstack material formed over the semiconductor material between and adjoining the plurality of stacks, the interstack material having a top surface that is substantially coplanar with a top surface of each stack.

14. The crystal of claim 7 and further comprising an interstack material formed over the semiconductor material between and adjoining the plurality of stacks, the interstack material having a top surface that lies below a top surface of each stack.

15. The crystal of claim 7 and further comprising an interstack material formed over the semiconductor material between and adjoining the plurality of stacks, the interstack material having a top surface that lies above a top surface of each stack.

16. A photonic crystal formed on a semiconductor material of a conductivity type, the semiconductor material having a top surface, the photonic crystal comprising:

an array of spaced-apart stacks formed on the semiconductor material, each stack having a plurality of layers of material and extending away from the top surface of the semiconductor material, the plurality of layers of material alternating between a first layer of material and a second layer of material, the first layer of material having a first dielectric constant, the second layer of material having a second dielectric constant; and

an interstack material formed over the semiconductor material between and adjoining the plurality of stacks.

17. The crystal of claim 16 wherein the interstack material has a top surface that is substantially coplanar with a top surface of each stack.

18. The crystal of claim 16 wherein the interstack material has a top surface that lies below a top surface of each stack.

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Column 6 (cont'd).

19. The crystal of claim 16 wherein the interstack material has a top surface that lies above a top surface of each stack.

20. The crystal of claim 16 wherein the interstack material has a top surface that is substantially coplanar with a top surface of each stack.

21. The crystal of claim 16 wherein the interstack material has a top surface that lies below a top surface of each stack.

22. The crystal of claim 16 wherein the interstack material has a top surface that lies above a top surface of each stack.--

Signed and Sealed this

Twenty-fifth Day of April, 2006

A handwritten signature in black ink, reading "Jon W. Dudas". The signature is stylized, with a large loop for the "J" and a cursive "Dudas".

JON W. DUDAS  
*Director of the United States Patent and Trademark Office*